

### **REMARKS**

Please reconsider the present application in view of the above amendments and the following remarks. Applicants thank Examiner for carefully considering the present application. By way of this reply, claims 1, 7, 13, 14, 16, 18-25, 27, 28 have been amended. Claims 1-28 are pending upon entry of this amendment.

### **Response to Claim Objections**

The Examiner objected to claims 1, 18, and 25 for allegedly containing unclear claim language in the limitation of “determining a search query associated with a query result including the first piece of information”. Claim 1 is amended to recite “identifying a search query from the plurality of search queries associated with the merged query result, the identified search query being associated with a query result including the first piece of information, the query result from among the plurality of query results” instead of the objected to limitation. Claims 18 and 25 are similarly amended. Applicants submit that the amended claims do not contain unclear claim language.

The Examiner objected to claims 25-28, and suggested that the language “configured for” should be “configured to”. Applicants disagree with the Examiner’s objection. Nevertheless, to expedite prosecution Applicants have amended claims 25-28 as the Examiner suggested.

Withdrawal of the claim objections is hereby requested.

### **Response to Rejection under 35 USC 101**

The Examiner rejected claims 18-21 under 35 U.S.C. 101 for allegedly directed towards non-statutory subject matter. Specifically, the Examiner asserted that the phrase

“computer-readable medium” may be comprised of non-statutory subject matter.

Applicants have amended claim 18 to recite “computer-readable storage medium”, and submit that the claim as amended is directed towards statutory subject matter under 35 U.S.C. 101. Dependent claims 19-21 are statutory for the same reason.

The Examiner rejected claims 25-28 under 35 U.S.C. 101 for allegedly directed towards non-statutory subject matter. The Examiner asserted that the modules recited in the claims can be interpreted as software modules and thus leading the claims to be software per se. Applicants have amended claim 25 to include a computer processor as the Examiner suggested.

Withdrawal of the § 101 rejection is hereby requested.

**Response to Rejection Under 35 USC 102(e) in View of Barrett**

Claims 1-15, 18-20, and 22-28 stand rejected under 35 USC § 102(e) as allegedly being anticipated by U.S. Patent Application 2003/0135490 by Barrett et al. (“Barrett”). This rejection is traversed in view of the above amendment.

Independent claim 1 has been amended to now recite:

A computer-implemented method for ranking information, comprising:

receiving a plurality of query results of a plurality of search queries;

**merging the plurality of query results into a merged query result, the merged query result being associated with the plurality of search queries;**

determining a first ranking sequence of the merged query result;

**presenting the merged query result to a user according to the first ranking sequence;**

identifying an input signal from the user indicating an interest in a first piece of information in the merged query result;

**identifying a search query from the plurality of search queries associated with the merged query result, the identified search query being associated with a query result including the first piece of information, the query result from among the plurality of query results;**

adjusting a query factor associated with the identified search query responsive to the input signal;

locating a second piece of information in the query result associated with the identified search query;

determining a score for the second piece of information based at least in part on the query factor associated with the identified search query;

determining a second ranking sequence of the merged query result based at least in part on the score; and

presenting the merged query result to the user according to the second ranking sequence.

(emphasis added)

Support for the claim amendments is found in the specification as filed at, for example, Figure 7, and paragraphs [0100-0103]. As amended, independent claim 1 recites a method for ranking information. The method merges a plurality of query results of a plurality of search queries into a merged query result, and presents the merged query result according to a first ranking sequence. The method identifies a user input signal indicating an interest in a first piece of information in the merged query result, and identifies a search query associated with the first piece of information. The method adjusts a query factor associated with the identified search query, and determines a score for a second piece of information in the query result of the identified query. The method determines a second ranking sequence of the merged query result based at least in part on the score, and presents the merged query result according to the second ranking sequence. This method is useful, for example, in reranking query results based on user responses to the query results.

Barrett discloses a method for determining an enhanced popularity score (EPS) for a given piece of information and a given query. See Barrett, e.g., paragraph [0033] and paragraph [0043], lines 10-12. The EPS is used to determine a score for the given piece of information in a query result of the given query (or similar queries). See Barrett, e.g., paragraph [0046]. The EPS is determined based on user selection information about a search result of the given query. See Barrett, e.g., paragraph [0010].

Different from claim 1 as amended, Barrett teaches displaying a query result of only a *single* query to a user for selection, and using the user's selection of the query result of the *single* query to determine the EPS. Therefore, Barrett, among other differences, does not disclose “merging the plurality of query results into a merged query result, the merged query result being associated with the plurality of search queries”, “presenting the merged query result to a user according to the first ranking sequence”, and “identifying a search query from the plurality of search queries associated with the merged query result, the identified search query being associated with a query result including the first piece of information, the query result from among the plurality of query results” as recited in independent claim 1 as amended.

The Examiner cited paragraph [0010] of Barrett for teaching “presenting the collection of information to a user according to the first ranking sequence” and “presenting the collection of information to the user according to the second ranking sequence” as previously recited in claim 1, and noted that paragraph [0045] taught the ranking process that allegedly disclosed the second ranking sequence. Paragraph [0010] of Barrett discloses displaying search result of a single search query, not a merged query result that is generated

based on a plurality of query results of a plurality of search queries. Paragraph [0045] of Barrett discloses that mature EPS can be used to rank query results. None of the cited sections of Barrett disclose displaying a merged search result of several search queries. Therefore paragraphs [0010] and [0045] do not disclose presenting a merged query result associated with a plurality of search queries as claimed in claim 1 as amended.

The Examiner cited step 2 in Figure 1 and Q1 in Figure 2 of Barrett for teaching “determining a search query associated with a query result including the first piece of information” as previously recited in claim 1. Step 2 in Figure 1 and the related description in Barrett teach a user entering a query into a search engine. Figure 2 and the related description in Barrett teach a database of EPS indexed by associated information and queries. None of the cited figures and corresponding descriptions disclose identifying a search query from a plurality of search queries associated with a merged query result as claimed in claim 1 as amended.

In addition, the Examiner cited paragraph [0037] and Figure 2 in the Response to Argument section, and noted that the Barrett system does disclose information retrieved from query results for a plurality of search queries. The Examiner noted that Figure 2 shows queries Q1-Q4, all containing information A. Paragraph [0037] of Barrett teaches using query family to compute expected hits, which are used to calculate Modified Scores (paragraph [0036]). Figure 2 shows an index of information, queries, and associated EPS. Multiple queries sharing a same piece of information in their result does not disclose (1) merging query results of multiple queries, (2) displaying a merged query result associated

with a plurality of search queries, and (3) identifying a search query from the plurality of queries associated with the merged query result.

In view of the above, Barrett fails to disclose each and every limitation recited in independent claim 1. Thus, independent claim 1 is patentably distinguishable over the cited reference for at least the reasons discussed above. Independent claims 18 and 25, and the dependent claims, are allowable for at least the same reasons.

In addition, dependent claims 7, 13, and 14 recite limitations that are not disclosed in Barrett. Specifically, dependent claim 7 is amended to recite “identifying parts of text typed by the user, the parts including at least two of the following: nouns, verbs, and proper nouns” and “generating the plurality of search queries based on the identified parts”; dependent claim 13 is amended to recite “increasing a refresh rate of a display of the merged query result to the user responsive to receiving input signals at an increasing frequency”; and dependent claim 14 is amended to recite “varying a refresh rate of a display of the merged query result to the user based at least in part on the duration between receiving the first input signal and the second input signal”. Barrett fails to disclose any of the above-cited limitations of claims 7, 13, and 14.

The Examiner cited paragraphs [0016-0019], [0039], and [0053] for teaching “increasing a refresh rate of a display of the collection of information to the user responsive to receiving input signals at a increasing frequency” as previously recited in claim 13 and paragraphs [0004] and [0053] for teaching of “varying a refresh rate of a display of the collection of information to the user based at least in part on the duration between receiving

the first input signal and the second input signal” as previously recited in claim 14. Paragraph [0004] of Barrett discloses increasing relevancy responses by utilizing previous user activities. Paragraphs [0016-0019] disclose an adaptive inflation approach to smooth the impact of unusual spikes in usage. Paragraph [0039] discloses considerations in providing timely relevant rankings. Paragraph [0053] discusses detection of periodic non-random user behaviors. None of these cited sections of Barrett is relevant to increasing/varying a refresh rate of a display of a merged query result, as recited in dependent claims 13 and 14.

Thus, dependent claims 7, 13, and 14 are also allowable for at least these additional reasons.

Accordingly, withdrawal of the § 102 rejection is respectfully requested.

**Response to Rejection Under 35 USC 103(a) in View of Barrett and Corston-Oliver**

Claims 16, 17, and 21 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Barrett in view of U.S. Patent 6,295,529 to Corston-Oliver et al. (“Corston-Oliver”). This rejection is traversed in view of the above amendment.

Claims 16 and 17 depend from independent claim 1, and dependent claim 21 depends from independent claim 18. As argued above, Barrett fails to disclose “merging the plurality of query results into a merged query result”, “presenting the merged query result to a user according to the first ranking sequence”, and “identifying a search query from the plurality of search queries, the search query being associated with a query result including

the first piece of information, the query result from among the plurality of query results” as recited by independent claim 1. Corston-Oliver similarly fails.

Corston-Oliver describes a system for determining a relationship between a first textual input and a second textual input. The Corston-Oliver system identifies clauses in the first textual input and determines the relationship based on the identified clauses. Corston-Oliver is not related to merging query results of multiple search queries, presenting a merged query result associated with a plurality of search queries, or identifying a search query from the plurality of queries associated with the merged query result. Therefore, Corston-Oliver does not teach or suggest the claimed elements that Barrett fails to disclose.

In view of the above, Barrett and Corston-Oliver, whether considered singly or in combination, fail to disclose each and every limitation recited in independent claim 1. Thus, independent claim 1 is patentable over Barrett and Corston-Oliver for at least this reason. Independent claims 18 and 25, and the dependent claims are allowable for at least the same reason. Accordingly, withdrawal of the § 103 rejections is respectfully requested.



### **Conclusion**

In sum, Applicants respectfully submit that claims 1-28, as presented herein, are patentably distinguishable over the cited reference. Therefore, Applicants request reconsideration of the basis for the rejections to these claims and request allowance of them.

In addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,  
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